

### Features

#### HR High Rate Discharge Series:

- Excellent high-rate discharge characteristics that ensure reliable performance in UPS and other high-rate discharge applications for up to 10 years service life at 25° C temperatures.
- Interior design performance attributes to ensure cell to cell consistency and high wattage per cell performances.
- Valve Regulated Lead Acid (VRLA), Absorbent Glass Mat (AGM) Technology – Safe operation in any position
- Lead-calcium alloy grids and the use of high purity virgin lead
- Externally sealed Flame retardant ABS case and cover to UL94V-0 for superior performance on sizes over 33Ah is standard (under 33Ah is optional)
- Special high performance terminals designed to increase conductance.
- UL recognized (UR) as a component in UL approved equipment installations under File number MH46202
- Classified as non-spillable status for transportation making it non-hazardous for normal transportation processes. Approved for transport by air. Fulfills US D.O.T., I.A.T.A., F.A.A., C.A.B. handling and shipping requirements
- For more details on special design and construction details see Features and Benefits publication on [www.oraclebattery.com](http://www.oraclebattery.com)

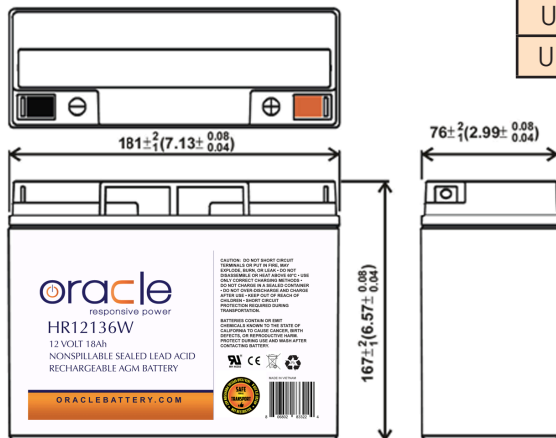


### Specification

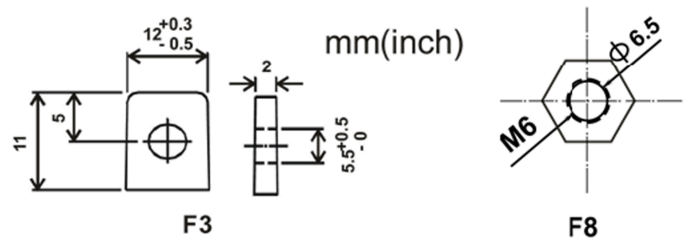
<b>Cell per unit</b>	6	<b>Ambient Temperature</b>
<b>Nominal Voltage (V)</b>	12	Charge 0°C (32°F) to 40°C (104°F)
<b>Nominal Capacity (watts)</b>	136W/cell @ 5mins rate to 1.6vpc	Discharge -15°C (5°F) to 50°C (122°F)
<b>Weight</b>	Approx 5.75kg (12.67lbs.)	Storage -15°C (5°F) to 40°C (104°F)
<b>Internal Resistance (1KHz)</b>	15mΩ	<b>Max Charge Current</b>
<b>Max Discharge Current (5s)</b>	270A	Max charge current 5.4A
<b>Battery Life</b>	Stand by : 10 years	<b>Cycle use:</b> Charge voltage: 14.4 to 15.0V
<b>Terminal Type</b>	NB(F3)/IT(F8)	<b>Stand by:</b> Charge voltage: 13.5 to 13.8V
<b>Container Material</b>	ABS 94-HB flame retardant case (94V-0 Optional)	



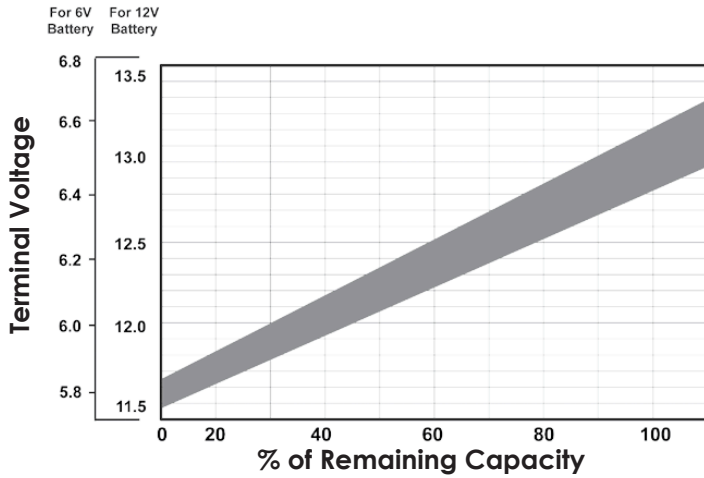
### Dimensions



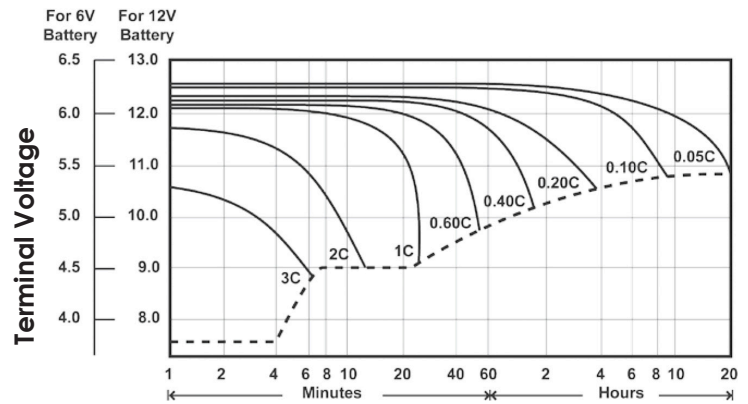
	Length	Width	Height	Total Height
Unit mm	181±1	76±1	167±1	167±1
Unit inch	7.13±0.04	2.99±0.04	6.57±0.04	6.57±0.04



## Terminal Voltage



## Discharge Times



Time to Ending Voltage

## Charge Voltages

Temperature Compensated Charging	Average Temperature	Cycle Charging Volts Per Cell	Float Charging Volts Per Cell
	-40°C (-40°F)	2.85-2.95	2.38-2.43
	-20°C (-4°F)	2.67-2.77	2.34-2.39
	-10°C (14°F)	2.61-2.71	2.32-2.37
	0°C (32°F)	2.55-2.65	2.30-2.35
	10°C (50°F)	2.49-2.59	2.28-2.33
	20°C (68°F)	2.43-2.53	2.26-2.31
	25°C (77°F)	2.40-2.50	2.25-2.30
	30°C (86°F)	2.37-2.47	2.24-2.29
	40°C (104°F)	2.31-2.41	2.22-2.27
50°C (122°F)	2.25-2.35	2.20-2.25	

## Temperature Storage

Average Storage Temperature	Recharging Interval
68°F	Every 9 months
77°F	Every 6 months
95°F	Every 3 months

## Constant Current Discharge Characteristics (25°C 77°F)

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	80.20	51.00	39.70	21.90	11.50	4.85	3.16	2.13	1.84	1.00
1.67V	76.00	47.50	38.00	21.00	11.30	4.76	3.14	2.13	1.80	0.97
1.70V	75.00	46.80	37.00	20.70	11.10	4.73	3.11	2.11	1.76	0.95
1.75V	71.20	44.50	36.30	19.80	10.70	3.64	3.08	2.10	1.73	0.94
1.80V	68.00	42.00	34.30	18.70	10.30	4.52	3.02	2.10	1.72	0.92

## Watts Per Battery Discharge Characteristics (25°C 77°F)

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	843.0	546.0	430.0	241.5	136.50	54.17	37.12	23.64	20.10	11.80
1.67V	811.7	535.3	421.0	239.0	135.15	53.88	37.03	23.58	20.10	11.70
1.70V	778.1	522.8	412.0	235.7	133.55	53.50	36.90	23.58	20.06	11.60
1.75V	732.3	504.5	400.0	230.5	131.18	53.03	36.70	23.28	19.95	11.40
1.80V	632.7	465.8	383.1	222.0	127.38	52.00	36.18	23.10	19.65	11.00



**HR12136W 12V 18Ah**  
 Sealed Lead Acid AGM Battery